

Chinese wax mine

Wave 8 Apr 1976

By Howard R. Ritzma

The Chinese Wax mine in Daniels Canyon, Wasatch County is a small deposit of black, viscous, waxy oil emplaced in fractured, brecciated Oquirrh Formation (Pennsylvanian-Permian) on the Strawberry Valley (or Charleston) thrust sheet where the thrust has over-riden the west margin of the Uinta Basin. The oil has apparently migrated up a fracture zone from the Wasatch or lower Green River Formations (early Eocene) beneath the thrust. The fracturing is related to a regional lineament which crosses much of northern Utah.

The deposit which has been mined sporadically for 60 or more years is the only one in Utah with a record of exploitation solely as a source of petroleum products.

The Chinese Wax mine or the Daniels Canyon oil-impregnated rock deposit as it is officially named is located in Wasatch County, 200 to 300 feet east of U.S. Highway 40 about 1.0 mile north of Daniels Summit and about 0.1 mile south of the entrance to the U.S. Forest Service Lodgepole Campground.

A short, primitive road leading east from U.S. Highway 40 along the north side of a minor, unnamed tributary of Daniels Canyon (or Daniels Creek) provides access within 50 feet to the remains of the foundation of a retort and the lower workings of the mine. The area is mountainous and thickly vegetated. Elevation is about 7,900 feet.

History

The Chinese Wax mine was discovered around the turn of the century and the superficial resemblance of the material to ozokerite found in veins in the Soldier Summit area some 25 miles south was noted. Filings on the deposit are supposed to have been made in the early 1900's, but the first recorded are attributed to William S. Bethers, J.P. Jordon, Ephraim Bethers and George Bethers on Feb. 1, 1909. The mine was worked sporadically for a number of years but then lay idle.

In the late 1920's interest revived in the mine, and in 1929 and 1930 a company, Daniel Mining and Refining Company, was organized and commenced operations at the mine. The promoter of the project was Ludlow Glascke, an engineer and geologist with experience in ozokerite mining in the Soldier Summit area. Glascke sought support for his venture in Heber City and held meetings in Heber Town Hall to interest investors. Response in those years of the Depression was luke warm, but finally enough money was raised to open the mine and begin retorting operations. The

principal investor was Joe Grover, a Park City resident of Chinese descent. Stock certificates issued in 1930 show Grover as president and Glascke as secretary of the firm. The name—Chinese Wax mine—is derived from Grover's direction of the operation. The retort erected at the mine came from an oil shale plant at Carlin, Nev. The retorted oil was a black waxy substance which was further distilled or refined at the site. One end product was a high grade, light yellow oil which was used in automobiles and machinery in the Heber City area. Some lamp oil and candle wax was also produced and used in Heber City and Park City. The market for these products was very limited. The mine and plant closed after about two years of small-scale operations. The retort used at the Chinese Wax mine was dismantled, reportedly during World War II, and moved to the vicinity of DeBeque in western Colorado's oil shale region.

Despite its minor size and the small and probably noncommercial nature of the mining and retorting operation, the Daniels Canyon oil-impregnated rock deposit is the only such deposit in Utah to be exploited solely as a source of petroleum products. This contrasts to the sizeable tonnage of material mined from other deposits and used for paving material.

Geologic setting

The Chinese Wax mine is located on the west margin of the Uinta Basin where the basin has been over-riden by the Strawberry Valley (or Charleston) thrust.

The Daniels Canyon deposit is located in outcrops of the Oquirrh Formation (Pennsylvanian-Permian) in beds about 8,000 feet below the top of the formation, probably in the lower part of the Wolfcampian (Permian) portion of the formation. Total thickness of the Oquirrh Formation on the overthrust sheet is between 25,000 and 30,000 feet. The formation is overturned in the vicinity of the deposit with dips ranging from 60 degrees to 75 degrees to the northeast. The deposit is located in quartzite and siliceous limestone, all strongly fractured.

Based on the cross section accompanying this paper it is estimated that the overthrust sheet in the vicinity of the deposit is about 2,500 feet thick and that it consists entirely of the Oquirrh Formation. No other occurrences of oil are known in the Oquirrh.

The strike of the fracture zone can be discerned from the alignment of mine entries and dumps and is confirmed by what can be deduced of the trend of the underground workings which have followed the zone.

Regional tectonic studies of the Uinta Mountains and Uinta Basin in 1969 and 1970 revealed the presence of a topographic and structural lineament extending from an area northeast of Vernal for 120 miles in a west-southwest direction to the vicinity of Springville in central Utah. Subsequently, it was

recognized by this writer in 1969 and traced in considerable detail in 1970 and 1971. In 1971 an inquiry to the Utah Geological Survey led to the rediscovery of the Chinese Wax mine and the designation of it as a previously unrecognized oil-impregnated rock deposit. When the deposit was located definitely and this location plotted on a tectonic map, it was found to lie squarely astride the lineament. Two other oil-impregnated rock deposits, Lake Fork and Spring Branch, are also on or adjacent to the feature; and two more, Tabiona and Whiterocks, are on branches of the lineament or closely parallel lineations. In October 1971 this writer presented his retiring presidential address to the Utah Geological Association entitled, "A Utah Lineament: Petroleum, Mineralization and Other Ramifications," in which the feature was named the Towanta Lineament and its relationship to the Daniels Canyon deposit discussed. In June 1974 an expanded version of this paper, entitled "Towanta Lineament, Northern Utah," was presented to the First International Conference on the New Basement Tectonics held in Salt Lake City. This paper is scheduled for publication by the Utah Geological Association in volume covering the conference proceedings.

The location of these oil-impregnated rock deposits on or adjacent to the Towanta Lineament and on branches or parallel lineations can scarcely be coincidental. It appears that faulting and fracturing along the lineament has provided a conduit for migration of oil from organic source beds known to exist at depth in the Uinta Basin or that, in some cases, the lineament has acted as a barrier to migrating oil which might have reached the outcrop in some other area. The two factors likely acted in combination in many cases.

Structural implications

The presence of waxy oil resembling ozokerite, typical Uinta Basin crude oil, in the fractured Oquirrh Formation on the Strawberry Valley (or Charleston) thrust sheet poses some interesting structural questions.

First, if the source of the oil is in the Wasatch or lower Green River Formation, source of Uinta Basin ozokerite (Hunt, Stewart and Dickey, 1954; Hunt, 1963), it can be inferred that these formations are present beneath the Strawberry Valley thrust sheet. *

Secondly, if Wasatch or lower Green River Formation beds are present beneath the Strawberry Valley thrust sheet, then the margin of the Uinta Basin extends farther west than previously considered and the thrust faulting postdates Wasatch or early Green River deposition (at least late early Eocene) and is considerably younger than previously considered.

Finally, the oil apparently has migrated upward through the thrust sheet through fractures or faults along the lineament.

NOTICE OF HEARING

The Board of Adjustment of Heber City will hold a public hearing on Thur., April 15, 1976 at 7:30 p.m. in the City Council Room to hear arguments for and against granting the following request.

A request of a variance in front yard, rear yard, or side yard requirements to remodel and build on to a service station situated at 4th North and Main Street in Heber, Utah. Said request being made by Cook Oil Co.

Also a request by Brent Hill for a variance in the side yard and front footage requirements on a lot at 48 East and 5th South in Heber, Utah.

All interested persons are invited to attend the hearing.

By order of the Board of Adjustment

Published in the Wasatch Wave April 8, 1976.

NOTICE

I hereby notify you that the following offices are those for which candidates are to be nominated at the Primary Election to be held on Tuesday, the 14th day of September, 1976:

CONGRESSIONAL

One (1) United States Senator
STATE EXECUTIVE

1. Governor
2. Lieutenant Governor/ Secretary of State
3. Attorney General
4. State Auditor
5. State Treasurer

STATE JUDICIARY—NON—PARTISAN

District 4—The position held by incumbent Judge George E. Ballif.

STATE SCHOOL BOARD—Non-partisan

One (1) Board Member in Regional School District Number Six

COUNTY COMMISSIONERS

One (1) two-year and one (1) four - year commissioner in every county.

COUNTY SCHOOL BOARD MEMBERS

Rept. Precincts 1, 2, and 3—4 year term

Mary G. Chipman

Wasatch County Clerk

Published in the Wasatch Wave April 8, 1976.

NOTICE TO CREDITORS

Estate of William L. Welch deceased. Creditors will present claims with vouchers to the undersigned at the office of John L. Chidester, 51 West Center, Heber City, Utah on or before the 26th day of June A.D. 1976.

Beva C. Maxwell, Administratrix of the Estate of William L. Welch, Deceased.

Published in the Wasatch Wave March 25, April 1, 8 and 15, 1976.

NOTICE TO CREDITORS

Estate of JOHN S. BALASKA. Creditors will present claims with vouchers to the undersigned at the office of JAMES J. SMEDLEY, 30 North Main, Heber, Utah, on or before the 26th day of June, 1976. Claims must be presented in accordance with the provisions of 75-9-5, Utah Code Annotated 1953, and with proper verification as required therein.

GUY OLPIN, Executor
Published in the Wasatch Wave March 25, April 1, 8 and 15, 1976.

Bells to toll on nations 200th anniversary

A simultaneous, nationwide ringing of bells on July 4 will herald the country's entrance into its third century.

Communities, churches, schools, fire departments, universities and individuals will toll bells and carillons in conjunction with the ringing of the Liberty Bell in Philadelphia at 2 p.m. (EDT). The time selected is exactly 200 years from the precise moment that the Liberty Bell proclaimed the independence of the new nation.

John W. Warner, Administrator of the American Revolution Bicentennial Administration (ARBA), announced the nationwide bell ringing program after consultations with community, state and regional Bicentennial officials at a special Bicentennial Weekend planning meeting held in Denver, Colo.

"There is great interest across the land in a symbolic national effort to commemorate our 200th anniversary and many communities have already begun planning bell-ringing ceremonies as part of their

Beware examine

Bunco fraud is one of the most frustrating and difficult to solve crimes. The bunco artists are generally highly skilled and highly mobile professionals.

In the case of the "Bank Examiner" fraud, the crew generally from out of state, will set up operations in a motel room, run a canvas of 40 to 50 possible victims, hit 3 or 4 and be on their way within a matter of three to four days.

Quite often a victim is first contacted by a female purporting to be a clerk with a bank. Claiming to be checking records she will make the initial effort to determine the victim's bank. Cleverly screening potential victims she will set up a future call from a purported high bank officer. Within a day the fake bank officer will follow up, and, if successful, will determine the

Bicentennial activities," he said.

"Now, we are asking all Americans to join together on this historic occasion, and let the sound of every bell in the country ring out to declare our freedoms and signify our unity."

He added that he hopes that Americans living and working abroad will join in the salute.

The bell-ringing will go on for two minutes in commemoration of the nation's first two centuries.

Radio and television stations are being asked to broadcast the sound of bells during the period.

The nationwide effort is encouraged and supported by a Senate Concurrent Resolution of the United States Congress.

The Liberty Bell will be rung (amplified electronically because of the crack) in a symbolic national ceremony conducted by the Sons of the American Revolution at Independence National Park at precisely 2 p.m. (EDT).

With most of the country on daylight savings time, corresponding times are 1 p.m. CDT, noon MDT and 11 a.m. PDT. In Hawaii it will be 8 a.m. Standard Time and in American Samoa 7 a.m. Bering Time. Alaska stretches four time zones from Pacific to American Samoa. In Guam it will be 5 a.m. K Time of July 5. While Puerto Rico and the Virgin Islands it will be 2 Atlantic Time the afternoon of the 4th.

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